

Montana Spring Water School
May 4 and 5, 2021
On-line Training and Continuing Education
For Montana's Water and Wastewater Operators

Register at
<https://eu.courses.montana.edu/wconnect/CourseStatus.awp?&course=21SAW/ATER&publish=ANYWAY>

**Department of
Civil Engineering**

Montana's water and wastewater systems and the communities they support rely on qualified and trained system operators. The Montana Water and Wastewater Operators Initiative (MW²OI) is a collaborative effort to provide the most comprehensive training possible for Montana's operators. MW²OI is a partnership between the Montana Department of Environmental Quality, the Department of Civil Engineering and Academic Technology and Outreach at Montana State University, and the professional organizations representing Montana's water and wastewater system operators.

MW²OI is offering Spring 2021 Water School to continue the long tradition of operator training at Montana State University. Due to the restrictions and uncertainties caused by COVID-19, this spring's Water School will be offered virtually over the course of two days to allow operators around the state to participate in training and meet their obligations in their communities. The theme for this Spring 2021 Water School is "System Security and Control"

Knowledgeable speakers from around the nation will provide operators with important training on ways to improve their systems and share their experiences in improving the operation of Montana's water and wastewater systems.

The virtual sessions on May 4 will focus on water systems and sessions on May 5 will focus on wastewater systems. There will be dual credit courses available.

All sessions will be delivered by Academic Technology and Outreach (ATO) at Montana State University. ATO was established to promote learning outside of traditional on-campus channels by providing the tools, infrastructure, vision and outlook to connect learners everywhere with MSU. As a partner in the MW²OI, ATO provides access to MSU's online non-credit learning management system.

Registration for the Spring Water School is \$100. All sessions will be eligible for CEU's. Sessions will be recorded and made available to registered attendees for two weeks after the conference.

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Agenda – 2021 Spring Water School

Tuesday, May 4, 2021

8:45-9:00 am

Welcome and Introduction to the Montana Water and Wastewater Operators Initiative (MW²OI) Spring Water School

Craig Woolard is Professor and Head of the Department of Civil Engineering at Montana State University and the Director of the Montana Water and Wastewater Operators Initiative. Prior to returning to MSU, Craig served as the Director of Public Works for the City of Bozeman. Craig has served as the Treatment Operations Director and then General Manager of the Anchorage Water and Wastewater Utility in Anchorage, Alaska. Craig has been active in professional associations throughout his career and has served as the national president for the American Water Works Association in 2008. Craig grew up in Kalispell, Montana, holds a B.S. in Civil Engineering from Montana State University and a Ph.D. in Civil Engineering from the University of Notre Dame. He is a registered professional engineer Alaska and Montana.

9:00 -10:30 am

Water Regulatory Update will cover a wide range of topics including:

- a brief rule review;
- a review of waiver requirements;
- a discussion on emerging contaminants and finally a
- a regulatory update.

Speaker: Lisa Kaufman has served as the Surface Water Treatment Rule Manager in the Public Water Supply Bureau at the Montana Department of Environmental Quality for 11 years. Lisa relocated to Montana from Indiana where she worked in the public health sector for 20 years in water quality. She has a Bachelor's degree in Biology & Spanish.

10:30 am-12:00 noon

Cyber Security (Dual Credit) will discuss how recent incidents targeting water systems in Florida and elsewhere validate the need for all water systems to address cyber vulnerabilities. AWWA has developed cybersecurity guidance and an assessment tool to help water systems evaluate which controls are most relevant to their operating environment. This addresses enterprise and process control systems. Participants will gain an understanding of how to apply the guidance and establish a cybersecurity risk management strategy.

Speaker: Kevin Morley is the Manager of Federal Relations for the American Water Works Association (AWWA). He works closely with multiple organizations to advance the security and preparedness of the water sector. This includes supporting the development of several ANSI/AWWA standards that represent minimum best practice

for water sector risk and resilience management, including cybersecurity guidance. He is a leading expert on §2013 of America's Water Infrastructure Act (AWIA) of 2018 and multiple resources that enable water system to advance their security and preparedness to all-hazards. Dr. Morley has been appointed to the President's National Infrastructure Advisory Council. Dr. Morley received his PhD from George Mason University for research on water sector resilience and developing the Utility Resilience Index (URI). He holds a MS from the State University of New York College of Environmental Science and Forestry and a BA from Syracuse University.

1:00 pm – 2:30 pm

SCADA Systems (Dual Credit) will cover practical aspects of operating and maintaining SCADA and instrumentation and controls systems in water and wastewater treatment systems. The role of SCADA systems in maintaining cybersecurity will also be discussed.

Speaker: Tom Delora a Professional Engineer and he has spent 46 years in the water community, as a utility employee and consultant. Tom is active on water/wastewater committees at local and international levels. During his career he has done research, design, construction, operation and maintenance of automation and computer applications for all water and wastewater processes. He is active in training operations professionals around the country through AWWA.

2:30 – 4:00 pm

Water Distribution System Operations and Backflow Prevention will cover the fundamentals of water distribution system including system maintenance tasks and leak detection, hydrant flowing and utility locates. Special emphasis will be placed on distribution system cross connections and control and the basics of backflow prevention.

Speakers: Nick Pericich graduated from Montana State University with a degree in Chemical Engineering. Shortly after graduation, he joined the Bozeman Water and Sewer Division as an operator and now serves as Assistant Superintendent responsible for the operation and maintenance of the water distribution and wastewater collection systems. He has 20 years of operations experience in his various positions with the City of Bozeman Water and Sewer Division. Most of his expertise lies in the area between the two treatment plants on everything from how to make taps to helping plan our daily routine using asset management. **Tim Tuskan** is cross-connection control specialist with the City of Bozeman water department.

He has been with the City since 2013. He is a Class IA certified Water Distribution operator and a Certified Backflow Tester by the American Backflow Prevention Association. Tim supports Bozeman's backflow cross connection and backflow control program by providing testing, education and data base maintenance.

Wednesday, May 5, 2021

8:45-9:00 am

Welcome and Introduction to the Montana Water and Wastewater Operators Initiative (MW²OI) Spring Water School

Craig Woolard is Professor and Head of the Department of Civil Engineering at Montana State University and the Director of the Montana Water and Wastewater Operators Initiative. Prior to returning to MSU, Craig served as the Director of Public Works for the City of Bozeman. Craig has served as the Treatment Operations Director and then General Manager of the Anchorage Water and Wastewater Utility in Anchorage, Alaska. Craig has been active in professional associations throughout his career and has served as the national president for the American Water Works Association in 2008. Craig grew up in Kalispell, Montana, holds a B.S. in Civil Engineering from Montana State University and a Ph.D. in Civil Engineering from the University of Notre Dame. He is a registered professional engineer Alaska and Montana.

9:00 -10:30 am

Wastewater Regulatory Update will provide an overview of EPA Region 8 activities in Montana as they relate to compliance and technical assistance. In addition, an overview of wastewater technical assistance offerings at DEQ including new initiatives, O&M, optimization, and overall plan for the coming field season and year will be discussed.

Speakers: **Lisa-kay Prideaux** is an operator with EPA Region 8. She was previously an environmental compliance inspector at DEQ with a specialization in wastewater. She has been a regular contributor to past water schools. **Pete Boettcher** and **Josh Viall** lead DEQ's wastewater technical assistance program and are responsible for field operations support.

10:30 am-12:00 noon

Emergency Power Systems (Dual Credit) will cover the critical system planning and assessment necessary to plan for emergency power systems to prepare utilities for unstable and interruptible grid power supplies.

Speaker: **Dr. Robert Cheng** is the Assistant General Manager at the Coachella Valley Water District in California where managing a group of 570 employees responsible for the domestic water, canal water, wastewater collection and treatment, storm water, recycled water, and groundwater recharge services of the District. Dr. Cheng has involved in planning and operating emergency power systems for Cochella Valley during times of unstable power

1:00 pm – 2:30 pm

Wastewater systems process and energy optimization will cover practical steps what wastewater systems can take to optimize power consumption and save money.

Wastewater treatment systems are frequently one of the community's top energy consumers and power bills are one a utility's largest energy expenses.

Speaker: Todd Brewer is the Senior Manager – Grants, Education, and Utility Programs with the American Water Works Association in Denver, Colorado. Prior to his current position, he served as the Senior Manager – Partnership Programs (at AWWA) and oversaw the continuous improvement and optimization programs for Drinking Water Treatment, Distribution Systems, and Wastewater Treatment Facilities. He continues to manage the Partnership Programs as part of his new role at AWWA. Todd also served for 8+ years as the Manager – Water Quality & Optimization for City Utilities of Springfield, Missouri. Before his tenure at City Utilities, he served as the Water Quality Lab Manager/Treatment Supervisor for the City of Oklahoma City for several years. Overall, he has more than 22 years' experience in the drinking water utility field and has held licenses as a Water Operator (A) in both Oklahoma and Missouri. Todd is a licensed Professional Engineer (OK) and holds a PhD in Environmental Engineering from the University of Nevada, Reno. He has taught college-level chemistry and engineering courses for the last 22+ years and has served as an instructor for several operator certification classes and AWWA workshops.

2:30 – 4:00 pm

Optimizing Nutrient Removal Using Existing Wastewater Equipment: Montana Case Studies will provide an in-depth review of the projects that two small Montana communities completed to dramatically improve nutrient removal. The lessons learned during these projects will help other communities prepare for future upgrades and operational improvements.

Speaker: Grant Weaver is a licensed wastewater operator and professional engineer. For the last 22 years, Grant has taught wastewater nutrient optimization class for the Montana Department of Environmental Quality and applied his expertise to treatment facilities across the state.

Registration and Fees

All sessions will be delivered by MSU's Academic Technology and Outreach Program (ATO). Spring Water School Participants can register on line at:

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Operators registering for the Spring Water School will have access to all of the presentations real time, as well as access to recordings of each session for two weeks after the conference. Registration for the Fall Water School is \$100